

Notice of Allowability

Application No.

09/877,104

Examiner

Tri H. Phan

Applicant(s)

YI ET AL.

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the communication on 26 October 2004.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☒ The drawings filed on 11 June 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney **Daniel Y.J. Kim** (Reg# 36,186) on **October 26th, 2004**.

The application has been amended as follows:

IN THE CLAIM:

The following change to the claim 5 has been approved by the examiner and agreed upon by applicant:

In claim 1, line 5, the phrase "the condition of the followings" has been changed to -- the following conditions --.

In claim 1, lines 7, 9, 16, 18 and 20, the term "PU" have been changed to -- PDU --.

In claim 1, insert the word -- and -- right after the term "(VT (MS))" in line 10.

In claim 1, delete the word "the" right in front of the term "sequence number" in line 7.

In claim 1, delete the word "the" right in front of the phrase "window transmission percentage" in line 11.

In claim 1, substitute "the" to -- a -- right in front of the term "first time" in line 8.

In claim 1, substitute "the" to -- a -- right in front of the term "peer receiver" in line 9.

In claim 1, substitute "the" to -- a -- right in front of the term "parameter" in line 12.

In claim 4, line 4, the term "PU" has been changed to -- PDU --.

In order to avoid abandonment of the application, applicant must make these above agreed upon claim changes (claim 1).

Reasons For Allowance

2. Claims 1-9 are allowed. The following is an examiner's statement of reasons for allowance:

Claims 1-9 are considered allowable since when reading the claims in light of the specification, none of the references of record-alone or in combination disclose or suggest the combination of limitations specified in the independent claims including.

Substantially regarding claim 1, the prior art of record fails to disclose the method for confirming the receipt protocol data unit in the mobile communication system by modifying the conventional window-based polling algorithm for eliminating the starting point polling problem by satisfying the conditions such as the sequence number of the next PU to be transmitted for the first time (VT(S)) is smaller than the sequence number of the first PU not allowed by the peer receiver (VT(MS)), and especially the window transmission percentage (X), which is a function of the sequence number of the next PU to be transmitted for the first time (VT(S)), is bigger than

the parameter indicating when the transmitter should poll the receiver in case of performing window-based polling (Poll Window) and do not have maximum value when the sequence number of the next PU to be transmitted for the first time (VT(S)) equals to the sequence number of the first PU not allowed by the peer receiver (VT(MS)).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sam Shiaw-Shiang Jiang (U.S.2003/0095534 and JP 2004/179916), **Lu et al.** (U.S.2003/0081664), **Ruutu et al.** (U.S.6,219,713), **Nasir Ghani et al.** ("TCP/IP Enhancements for Satellite Networks", July 1999, IEEE, 0163-6804/99, pages 64-72), **Byung-Gon Chun et al.** ("Auxiliary Timeout and Selective Packet Discard Schemes to Improve TCP Performance in PCN Environment", 1997, IEEE, 0-7803-3925-8/97, pages 381-385) and **3GPP TSG-RAN WG2 Meeting#25** ("Change Request 25.322 CR 156 Rev. 4.2.0", 11-2001, Makuhari, Japan, pages 1-2 and 40-44) are all cited to show devices and methods for improving transmission control in the wireless telecommunication architectures, which are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (703) 305-3900.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tri H. Phan
October 26, 2004



DANG TON
PRIMARY EXAMINER